

**UNDERSTANDING INTERNET BANKING SERVICES
AND CUSTOMERS' ADOPTION IN IRAQI
PUBLIC UNIVERSITIES**

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**INTERNET BANKING SERVICES AND CUSTOMERS' ADOPTION IN IRAQI
PUBLIC UNIVERSITIES USING DECOMPOSED
THEORY OF PLANNED BEHAVIOR**

**BY
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ABSTRACT

There is no doubt that internet banking services adoption represents a good opportunity for developing nations to attain greater economic development and growth, where the creation of added value is driven by information, knowledge and the adoption of information and communications technology. Although a lot of researches provide evidence on the wide adoption of internet banking in developed nations, there are only limited researches in developing nations in the Middle East, specifically in Iraq. There is definitely a need in this country to identify the factors that could encourage and improve the understanding of internet banking services adoption. There is also a paucity of empirical researches on internet banking services adoption from the perspective of customers. Taking these into cognizance, this quantitative research aims to understand internet banking services adoption, by investigating the key factors that encourage customers to adopt internet banking in the Iraqi context, using the decomposed theory of planned behavior. The research framework consists of eighteen latent variables, fourteen exogenous variables (perceived usefulness, perceived ease of use, compatibility, trust, social recommendation, prestigious media, self-efficacy, government support, technology support, internet technology literacy, resistance to technology, perceived risk of technology, anxiety about technology and information on technology); and four endogenous variables (internet banking adoption, attitude, subjective norms and perceived behavioral control). In order to test the framework, a quantitative approach using the survey method is employed consisting of eighty two items with a seven-point Likert scale. Based on proportionate stratified random sampling, 535 out of 800 employees submitted completed questionnaires suitable for analysis (a 66.8% response rate). Findings of this study reveal that all the research hypotheses are supported except three, namely subjective norms, perceived behavioral control and information on technology towards internet banking services adoption, implying that the decomposed theory of planned behavior is an applicable underpinning theory for clarifying the important antecedents of internet banking services adoption in the Iraqi context.

Keywords: technological change, internet banking, decomposed theory of planned behavior, structural equation modeling.

ABSTRAK

Penggunaan perkhidmatan perbankan internet merupakan peluang yang terbaik bagi negara membangun untuk mencapai pembangunan dan pertumbuhan ekonomi yang lebih baik. Apatah lagi pembentukan nilai tambah ini didorong oleh teknologi, ilmu, serta teknologi maklumat dan komunikasi. Walaupun terdapat banyak bukti penyelidikan mengenai penggunaan perbankan internet secara meluas di negara membangun, namun penyelidikan masih terhad dalam kalangan negara-negara timur tengah terutamanya Iraq. Terdapat keperluan dalam mengkaji hal bagi memastikan faktor-faktor yang boleh menggalakkan penggunaan perkhidmatan perbankan internet. Jumlah penyelidikan empirikal adalah amat sedikit dalam bidang penggunaan perkhidmatan perbankan internet terutamanya daripada perspektif pelanggan. Oleh itu, penyelidikan kuantitatif ini bertujuan untuk memahami penggunaan perkhidmatan perbankan internet dengan menyiasat faktor-faktor utama yang menggalakkan para pelanggan untuk menggunakan perbankan internet di dalam konteks negara Iraq dengan menggunakan teori penguraian gelagat terancang. Kerangka penyelidikan ini terdiri daripada lapan belas pemboleh ubah latent, empat belas pemboleh ubah eksogen (tanggapan kebergunaan, tanggapan kesenangan kepenggunaan, keserasian, kepercayaan, cadangan sosial, media berprestij, keupayaandiri, sokongan kerajaan, sokongan teknologi, celik teknologi internet, halangan kepada teknologi, tanggapan risiko teknologi, kebimbangan terhadap teknologi dan maklumat ke atas teknologi). Selain itu, kerangka penyelidikan juga melibatkan empat pemboleh ubah endogen (penggunaan perkhidmatan perbankan internet, sikap, norma subjektif dan tanggapan kawalan gelagat). Pengujian kerangka ini menggunakan pendekatan kuantitatif secara kaedah tinjauan yang mengandungi lapan puluh dua item dengan tujuh mata skala Likert. Berdasarkan kepada pensampelan rawak berkadaran berlapis, 535 daripada 800 orang pekerja mengemukakan borang soal selidik yang lengkap untuk penganalisan (66.8% kadar maklum balas). Hasil kajian ini menunjukkan bahawa semua hipotesis disokong kecuali tiga iaitu norma subjektif, tanggapan kawalan gelagat dan maklumat terhadap teknologi ke atas penggunaan perkhidmatan perbankan internet. Ini menunjukkan bahawa teori penguraian gelagat terancang adalah sesuai sebagai teori asas untuk menerangkan latar belakang penting penggunaan perkhidmatan perbankan internet di Iraq.

Katakunci: perubahan teknologi, perbankan internet, teori penguraian gelagat terancang, model persamaan struktur.

DEDICATION

By the grace and mercy of God, I dedicate my thesis to the memory of the departed soul of my uncle "Husain Omran", to my beloved mother and father, the greatest parents in the world. To my beloved mother and father, the greatest parents in the world. Without your unconditional love, prayers, wisdom, and encouragement, this thesis would not have been possible, and neither would there have been any joy in its completion.

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LIST OF ABBREVIATIONS

ATT	Attitude
AOT	Anxiety of Technology
AVE	Average Variance Extracted
CBI	Central Bank of Iraq
CBSEM	Covariance Based SEM
CMC	Communications and Media Commission
COM	Compatibility
CR	Composite Reliability
DSL	Digital Subscriber Line
DTPB	Decomposed Theory of Planned Behavior
DTPB	Decomposed Theory of Planned Behavior
EE	Effort Expectancy
FC	Facilitating Conditions
GDP	Gross Domestic Product
GS	Government support
GOF	GOODNESS OF FIT
IB	Internet banking
IRB	Iraqi Banks
IBS	Internet Banking Services
IBSA	Internet banking services adoption
ICT	Information and Communication Technology
ID	Identity
IDT	Innovation Diffusion Theory
IFT	Individual Factors Technology
IOT	Information on Technology
IT	Information Technology
ITL	Internet Technology Literacy
ITU	International Telecommunication Union
MOF	Ministry of Financial
MOI	Ministry of Interior
MOO	Ministry of Oil
NBK	National Bank of Kuwait
PBC	Perceived Behavior Control
PC	Perceived Compatibility
PE	Performance Expectancy
PEOU	Perceived ease of use
PLS	Partial least Square
PM	Prestigious Media
PU	Perceived Usefulness
QNB	Qatar National Bank
RIT	Risk Technology
RT	Resistance to Technology
SCIS	State Company for Internet Services
SE	Self Efficacy
SEM	Structural Equation Model

SI	Social Influence
SN	Subjective Norm
SCT	Social Cognitive Theory
SR	Social Recommendations
TAM	Technology Acceptance Model
TPB	Theory of Planned Behavior
TRA	Theory of Reasoned Action
TRU	Trust
TS	Technology Support
USA	United States of America
USD	United States Dollar
UTAUT	Unified Theory of Acceptance and Use of Technology
VBSEM	Variance Based SEM
VOIP	Voice over Internet Protocol
VSAT	Very Small Aperture Terminal
VTC	Video Tele
WI-FI	Wireless fidelity

CHAPTER ONE

INTRODUCTION

1.0 INTRODUCTION

The aim of this chapter is to introduce the overview of the study, and is organized as follows: Section 1.1 provides the research background; Section 1.2 highlights key issues and motivations for this research; Section 1.3 states and discusses the research problem; Section 1.4 outlines the research questions, followed by research objectives in Section 1.5; Section 1.6 highlights the significance of this study; Section 1.7 identifies its scope; Section 1.8 provides definition of key terms; and Section 1.9 provides organization of the thesis.

1.1 BACKGROUND

Banking and financial services are the most IT-intensive segments of the global economy. The Internet and its rapid diffusion, have led to the financial services industry, radically changing its delivery channels. Indeed, the Internet, and its associated technologies, is the keys to the survival and growth of businesses in today's competitive environment. Web technologies have been instrumental in helping many banks to establish their presence on the Internet, so that they can provide customers with many facilities to perform interactive banking transactions (Al-Somali *et al.*, 2009). The availability and increase of new information and communication technologies (ICTs) in the financial industry has a significant impact on the way banks currently provide services to their customers (Hoehle *et al.*, 2012). Around the world, banking remains the largest consumer of IT services, and the largest spender on IT systems. Many new business standards have been

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